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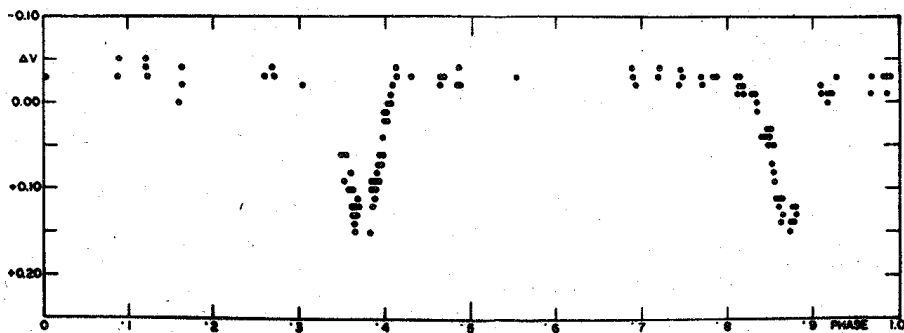
Konkoly Observatory
Budapest
1969 September 12

NEW BRIGHT ECLIPSING BINARY

As a result of a systematic search for eclipses among a group of double line spectroscopic binaries, not previously announced to be variable, the star BS 6611 was found to show primary and secondary eclipses of equal amplitude.

The observations were made with the photoelectric photometer of the Yale University Observatory 20-inch reflector at the Bethany Observing Station. A RCA 1P21 multiplier and a Schott GG 14 glass filter, producing magnitudes close to Johnson's V system, was used.

The companion ($\Delta m = 3$ mag., distance $38''$) was excluded from the measures.



BS 6604 has been used as the only comparison star. The star SAO 103020 has been measured to check the performance of the photometer.

The phases were calculated with the formula:

Phase = fraction of : $(\text{JD hel.} - 2440130'7083) \times 0'2568053$

in which the reciprocal period corresponds to the spectroscopic period (3894) as given by Petrie (1928).

The lightcurve is shown in the Figure, where the difference between variable and comparison star has been plotted against phase. The minima have the same depth of 0.3 magnitude. The eclipses are seen to be separated by half a period, which is compatible with a circular orbit.

BS 6611 is HD 161321. The star is No. 491 of Batten's (1967) recent Catalogue of Spectroscopic binaries. The V Magnitude at maximum is 6.07.

More observations are planned to complete the descending branch at phase .35 and the rising branch at phase .90.

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Yale University Observatory
New Haven, Connecticut
8 September 1969

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References

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Petrie, R.M., Dom. Astr. Obs. Vol. IV, 81 (1928).